

# Planning for North Carolina's Future



**Ask The Climate Question**

## 2010 Climate Change Adaptation Workshop

**Going Green at the Climate Change Adaptation Workshop**

The N.C. Interagency Leadership Team did more than just talk about the environment while planning the Climate Change Adaptation Workshop. It took action to make sure environmental sensitivity was at the forefront of each decision made. Doing so ensured the event is as green as possible.

The team relied heavily on technology to further its eco-friendly mission. Instead of driving to meeting sites, members held many planning discussions via conference calls. They also used e-mail and the Internet to advertise the workshop, communicate with speakers and register attendees, which saved paper and postage. Social media tools such as Twitter and Facebook provided another option for pre-workshop messaging, and the Web site, eRideShare.com, offered ways for participants to carpool to the event.

Team members went green with the supplies needed for the workshop, as well. This program was printed on 100-percent post-consumer paper. The name tag holders will be reused, and all paper, cans and bottles will be recycled if placed in the proper labeled containers. In addition, the bags that participants will take home are made of 100-percent post-consumer material, specifically recycled PET fabric made from plastic bottles, and can be reused. In lieu of individual gifts for the speakers, event organizers purchased carbon credits on the speakers’ behalf. The carbon footprint of this workshop has been offset with renewable energy and carbon offsets to minimize the environmental impact of electricity use, speaker travel, food preparation and the hotel stay of the attendees through a contribution to N.C. GreenPower.

The team continued the “going local” theme when selecting a catering company to provide lunch. It chose Lip Service Contemporary Catering, which is committed to sustainability, local purveyors and environmentally friendly practices. Consider these highlights as eco-friendly “food for thought” while dining during the workshop:

- Approximately 80 percent of the of the ingredients for the lunches were made with food produced within 100 miles of the McKimmon Center, with seasonal items comprising the rest of the menu;
- Boxed lunches were turned into family-style dining to reduce the amount of paper products;
- Leftovers and wrapped food will be sent to a local charity; and
- Food scraps will be composted.

Team members also chose the greenest options – literally – when picking centerpieces and interior landscaping. The N.C. Department of Transportation loaned the centerpieces to the event. The long leaf pine seedlings make up a small portion of the 150,000 seedlings the department purchased from the N.C. Forest Service for use in roadside beautification, reforestation efforts and wetland mitigation. Live greenery borrowed from a local nursery was used instead of cut flowers for interior landscaping around the podiums.

**DAY 1 – MARCH 2, 2010**

- 8 – 9:30 a.m. Registration and Exhibits — Lobby and Room 1
- 9:30 – 10:30 a.m. Opening Session — Room 1
- 10:30 – 11 a.m. Global Climate Change Impact in the United States — Room 1
- 11 – 11:30 a.m. Important Climate-Related Issues for Communities — Room 1
- 11:30 – 11:50 a.m. Break — Transition to Room 2 for lunch
- 11:50 a.m. – 1 p.m. Luncheon Plenary: What Leading States Are Doing to Address Impacts of Climate Change — Room 2
- 1 – 1:20 p.m. Break — Transition to Room 1
- 1:20 – 5 p.m. Planning in a Changing Climate: Projected Impacts and Adaptive Responses — Room 1
  - Water
  - Transportation & Infrastructure
  - Energy
  - Break
  - Ecosystems
  - Human Health
  - Society

**DAY 2 – MARCH 3, 2010**

- 8 – 8:30 a.m. Importance of Communication, Education and Engagement in Developing Plans — Room 1
- 8:30 – 9:15 a.m. Developing Climate Change Adaptation Strategies — Room 1
- 9:15 – 9:45 a.m. Vulnerability Analysis and Scenario-Based Planning — Room 1
- 9:45 – 10:15 a.m. Break — Room 1
- 10:15 – 10:45 a.m. Ask the Climate Question: Adapting to Climate Change Impacts in Urban Regions — Room 1
- 10:45 – 11:30 a.m. Understanding Regional Variations in the Potential Impact of Climate Change: Mountains, Piedmont and Coastal Plain — Room 1
- 11:30 – 11:50 a.m. Break — Transition to Room 2 for lunch
- 11:50 a.m. – 1 p.m. Luncheon Plenary: Tools and Resources for Planners — Room 2
- 1 – 3 p.m. Regional Breakout Sessions — Rooms 1a & b (Piedmont), 1c & d (Coastal) and 6 (Mountains)
- 3 – 3:30 p.m. Break — Room 2
- 3:30 – 4:30 p.m. Plenary Session: What Have We Discovered in the Breakout Sessions? — Room 2
- 4:30 – 5 p.m. Closing Message: Applying What We Have Learned — Room 2

Climate change adaptation resources can be found at [www.climatechange.nc.gov](http://www.climatechange.nc.gov).

“Planning for North Carolina’s Future: Ask the Climate Question”  
Climate Change Adaptation Workshop

DAY I – MARCH 2, 2010

8 – 9:30 a.m. Registration and Exhibits

9:30 – 10:30 a.m. Opening Session

Welcome

Moderator **Linda Rimer**, U.S. EPA Region 4 Liaison to North and South Carolina

Introduction

**Bill Friday**, President Emeritus, University of North Carolina

Why Focus on Adaptation? Adaptation vs. Mitigation

**John Sullivan III**, Federal Highway Administration, North Carolina Division Administrator

Most climate change conferences across the country have focused on mitigation, which is reducing greenhouse gas emissions through energy efficiency, energy conservation and renewable fuels. This conference is unique, because the focus is on climate change adaptation. We will look at how North Carolina can reduce its vulnerability and enhance its resilience to the changes that are already occurring in the climate and projected to increase in the future.

Why is Climate Change an Important Issue for North Carolina?

**Dee Freeman**, Secretary of N.C. Department of Environment and Natural Resources, **Eugene A. Conti Jr.**, Secretary of N.C. Department of Transportation, **Dale Carroll**, Deputy Secretary of N.C. Department of Commerce, **Linda Carlisle**, Secretary of N.C. Department of Cultural Resources and **Wayne Goodwin**, Commissioner of N.C. Department of Insurance

These leaders will provide their agency’s perspective on why climate change is an important issue for our state. Climate change is going to influence all of our various collective responsibilities, including local governments and elected officials. Together, we can integrate the consideration of climate into every day decisions by “Asking the Climate Question.”

10:30 – 11 a.m. Global Climate Change Impacts in the United States

**Tom Karl**, Nobel Prize-winning member of the Intergovernmental Panel on Climate Change; one of the Editors-in-Chief of the report: *Global Climate Change Impacts in the United States*; Director, NOAA’s National Climatic Data Center; Transition Director, NOAA Climate Services; and Past President, American Meteorological Society

Based on the book *Global Climate Change Impacts in the United States* published by U.S. Global Change Research Program, Karl will discuss the projected impacts relevant to North Carolina. Workshop participants will receive copies of this book.

11 – 11:30 a.m. Important Climate-Related Issues for Communities

**Scott Shuford**, Onslow County Planning & Development Director

Based on the new book co-authored by Scott Shuford, *Planning for a New Energy and Climate Future*, Shuford will explain how the impacts of climate change can be addressed at the local level. Workshop participants will receive copies of this book.

11:30 – 11:50 a.m. Break

11:50 a.m. – 1 p.m. Luncheon Plenary: What Leading States Are Doing to Address Impacts of Climate Change

**Zoe Johnson**, Office for a Sustainable Future, Maryland Department of Natural Resources

Johnson will share lessons learned in developing the Maryland Climate Change Adaptation Plan.

1 – 1:20 p.m. Break

1:20 – 5 p.m. Planning in a Changing Climate: Projected Impacts and Adaptive Responses

Experts will demonstrate the projected impacts to key sectors. All speakers will emphasize the need for comprehensive integrated planning. **Nina Szlosberg-Landis**, Conservation Council of North Carolina and N.C. Board of Transportation member, will introduce the speakers, synthesize the message and moderate questions that are posed by the workshop participants.

Water

**Nancy Beller-Simms**, Program Director, Sectoral Applications Research Program, NOAA Climate Program Office

Transportation & Infrastructure

**Gloria Shepherd**, Associate Administrator for Planning, Environment and Realty, Federal Highway Administration

Energy

**Dave McNelis**, University of North Carolina–Chapel Hill, Center for Sustainable Energy, Environment and Economic Development

Break

Ecosystems (nature, agriculture, forestry and people)

**Sam Pearsall**, Southeast Land, Water and Wildlife Program Manager, Environmental Defense Fund

Human Health

**Howard Frumkin**, Special Assistant to the Director for Climate Change and Health, U.S. Centers for Disease Control and Prevention

Society

**Chris Emrich**, University of South Carolina, Institute of Hazard Research

“Planning for North Carolina’s Future: Ask the Climate Question”  
Climate Change Adaptation Workshop

DAY 2 – MARCH 3, 2010

**8 a.m. Welcome**  
Moderator Linda Rimer, U.S. EPA Region 4 Liaison to North and South Carolina

**8 – 8:30 a.m. Importance of Communication, Education and Engagement in Developing Plans**  
Heidi Cullen, Climate Central  
  
Cullen will provide guidance on communicating with the public about climate change. Once we have a plan, how do we get people to buy into the changes that will be required? How can we encourage a coordinated climate change response in the state of North Carolina?

**8:30 – 9:15 a.m. Developing Climate Change Adaptation Strategies**  
Rob Verchick, EPA Deputy Associate Administrator for Policy  
  
The White House Council on Environmental Quality, the Office of Science and Technology Policy and the National Oceanic and Atmospheric Administration have initiated a one-year interagency review process to develop federal recommendations for adapting to climate change impacts both domestically and internationally. As one of the EPA representatives to this Climate Change Adaptation Task Force, Verchick will describe the goals and progress to date of this important task force.  
  
On a more local level, he will also explain how risk management tools can help communities increase their resilience in the face of climate change, and the economic and risk assessment considerations that will be needed in developing plans for climate-resilient communities.

**9:15 – 9:45 a.m. Vulnerability Analysis and Scenario-Based Planning**  
Kevin Moody, Federal Highway Administration  
  
Moody will give an overview of the Climate Change Imperative Toolkit, which uses scenario-based planning, vulnerability analysis, adaptive capacity evaluations and regional climate projections.

**9:45 – 10:15 a.m. Break**

**10:15 – 10:45 a.m. Ask the Climate Question: Adapting to Climate Change Impacts in Urban Regions**  
Josh Foster, Center for Clean Air Policy  
  
Foster will explain the approach developed by The Urban Leaders Program, which cities are using to incorporate a climate dimension into daily management and planning activities.

**10:45 – 11:30 a.m. Understanding Regional Variations in the Potential Impact of Climate Change: Mountains, Piedmont and Coastal Plain**  
Staff at the Renaissance Computing Institutes based at the University of North Carolina–Asheville, Chapel Hill and Charlotte, and East Carolina University  
  
Presentations will show how the projected climate threats are expected to have varying impacts on our coast, the piedmont and the mountains. Communities will need to plan adaptation strategies accordingly.

**11:30 – 11:50 a.m. Break**

**11:50 a.m. – 1 p.m. Luncheon Plenary: Tools and Resources for Planners**  
Reid Ewing, Smart Growth Planning Expert, University of Utah  
  
Based on his book *Growing Cooler, the Evidence on Urban Development and Climate Change*, Ewing will discuss emerging trends in planning, development and climate change.

**1 – 3 p.m. Regional Breakout Sessions**  
Staff at the Renaissance Computing Institutes based at University of North Carolina–Asheville, Chapel Hill and Charlotte, and East Carolina University  
  
Imagine how climate change will impact the future of your region. How can you ask the climate question in your work? How can you use the demonstrated tools to address these issues in your community? Workshop participants will break out into their respective regions of the state — mountains, piedmont and coastal plain — to discuss issues in facilitated sessions. The results of these discussions will be summarized during the following plenary session.

**3 – 3:30 p.m. Break**

**3:30 – 4:30 p.m. Plenary Session: What Have We Discovered in the Breakout Sessions?**  
Staff at the Renaissance Computing Institutes based at University of North Carolina–Asheville, Chapel Hill and Charlotte, and East Carolina University  
  
Team leaders will summarize the breakout sessions. Common themes and fresh ideas will be shared. We will try to identify what communities need to support climate change adaptation.

**4:30 – 5 p.m. Closing message: Applying What We Have Learned**  
Dee Freeman, Secretary of N.C. Department of Environment and Natural Resources  
Secretary Freeman will provide his insights on how we can integrate science and policy into state and local planning and action in North Carolina.

## Speaker Bios

### Thomas Allen

Dr. Thomas R. Allen is associate professor of geography at East Carolina University. Dr. Allen holds a bachelor's degree in geography from Old Dominion University and Ph.D. in geography from the University of North Carolina at Chapel Hill. Dr. Allen's research and teaching examine the interaction of climate, biogeography and humans on the landscape using geographic information systems and remote sensing. In North Carolina, his research has been applied to geography, ranging from visualizing coastal hazards on the Outer Banks and land-use change in the Piedmont to mapping vegetation disturbance and recovery in the Great Smoky Mountains.

### Nancy Beller-Simms

As program director for the NOAA Climate Program Office, Sectoral Applications Research Program, Nancy Beller-Simms administers an interdisciplinary grants program that supports applications research on the influence of climate variability and change on key socioeconomic sectors.

She recently led an effort through the U.S. Climate Change Science Program to complete a report entitled "Decision-Support Experiments and Evaluations using Seasonal to Interannual Forecasts and Observational Data: A Focus on Water Resources," which looked at successful and unsuccessful uses of climate forecasts and data in water resource management decision making. In addition, she co-chaired a meeting at Arizona State University on "Planning Integrated Research for Decision Support for Climate Adaptation and Water Management: A Focus on Desert and Coastal Cities." Beller-Simms received a Ph.D. from the University of Maryland in the field of geography.

### Linda A. Carlisle

Linda Carlisle graduated from the University of North Carolina at Greensboro and earned her Master's degree in business administration from Wake Forest University. She began her career in banking before starting her own business, Copier Consultants Inc. After selling the business, she turned her focus to community and educational interests. A committed community leader, Carlisle was named secretary of the N.C. Department of Cultural Resources by Gov. Bev Perdue in January 2009. The agency strives to enrich lives and communities, and serves 19 million people annually through three major areas: the arts, the State Library of North Carolina, and Archives and History. Carlisle is working on the local, state and national levels to communicate the impact cultural resources have in attracting and retaining jobs, enhancing the education of children and life-long learners, and growing stronger communities.

### Dale Carroll

When Dale Carroll was appointed by Gov. Bev Perdue as the deputy secretary of the N.C. Department of Commerce in January 2009, he brought three decades of business management and executive leadership to the position. Prior to joining Commerce, Carroll served for 12 years as the chief executive officer of AdvantageWest, an economic development partnership that serves 23 counties in the western part of the state. Before that, he worked for 18 years with Carolina Power & Light (now Progress Energy) in roles that ranged from energy services engineer to manager of economic development. Carroll received a Bachelor of Science degree from N.C. State University and a Master's degree in management and human relations from Webster University in St. Louis, MO.

## Speaker Bios

### Gene Conti

Gene Conti was appointed as secretary of the N.C. Department of Transportation by Gov. Bev Perdue in January 2009. He brings more than 30 years of public service and private business management experience to this position, including a previous cabinet-level appointment as secretary of the Maryland Department of Labor, Licensing and Regulation.

From 2001–2003, Conti served as chief deputy secretary for NCDOT and was responsible for cash management, safety initiatives, transportation planning and programming, and technology. In addition, Conti served three years as assistant secretary for Transportation Policy at the United States Department of Transportation. Prior to returning to NCDOT, he was district director for PBS&J's mid-South district, overseeing all business development efforts and community relations.

Conti earned his Ph.D. in anthropology, as well as his master's degree in policy sciences and public affairs, from Duke University. He also holds a Bachelor of Arts in sociology/anthropology from Eastern Michigan University.

### Heidi Cullen

Dr. Heidi Cullen is a senior research scientist with Climate Central, a non-profit science and communications organization headquartered in Princeton, NJ. Dr. Cullen currently provides reports on climate for *The NewsHour* on PBS, TIME.com and The Weather Channel. Before joining Climate Central, Dr. Cullen served as The Weather Channel's first on-air climate expert and helped create *Forecast Earth*, the first weekly television series to focus on issues related to climate change and the environment. Prior to that, Dr. Cullen worked as a research scientist at the National Center for Atmospheric Research in Boulder, Colo. She received the NOAA Climate & Global Change Fellowship and spent two years at Columbia University's International Research Institute for Climate and Society, working to apply long-range climate forecasts to the water resources sector in Brazil and Paraguay. In 2008, Dr. Cullen was awarded the National Conservationist Award for Science by the National Wildlife Federation.

### Chris Emrich

Dr. Chris Emrich is a research assistant professor at the Hazards and Vulnerability Research Institute within the University of South Carolina's Department of Geography. His research interests include the application of geospatial web-based technologies to emergency management planning and practice, long-term recovery from disaster, and the intersection of social vulnerability and community resilience in the face of disaster. From 2004 to 2007, he provided geospatial support for response and long-term recovery to the state of Florida and has since been actively involved in identifying trends in long-term recovery for coastal Mississippi, as well as supervising FEMA's public assistance web-transparency initiative for the gulf coast. Emrich has been a strong advocate of the transition of knowledge from academia and research to real-world application. He has been a key player in the development of theory, data, metrics, methods, applications and spatial analytical models for understanding the newly emergent field of hazard vulnerability science.



## Speaker Bios

**Reid Ewing** Reid Ewing is a professor of city and metropolitan planning at the University of Utah, associate editor of the *Journal of the American Planning Association*, columnist for *Planning* magazine, Fellow of the Urban Land Institute and member of the U.S. Green Building Council's LEED LP-Technical Advisory Group. Earlier in his career, he was director of the Voorhees Transportation Center at Rutgers University and research professor at the National Center for Smart Growth. He served two terms in the Arizona legislature and worked on urban policy issues at the Congressional Budget Office. He holds Master's degrees in engineering and city planning from Harvard University, and a Ph.D. in urban planning and transportation systems from the Massachusetts Institute of Technology. His most recent books are *Growing Cooler: The Evidence on Urban Development and Climate Change*, written for the EPA and published by the Urban Land Institute, and *U.S. Traffic Calming Manual*, co-published by the American Planning Association and American Society of Civil Engineers.

**Josh Foster** Josh Foster manages the Center for Clean Air Policy's Urban Leaders Adaptation Initiative, which is designed to equip U.S. partner cities and counties to make effective policy and investment decisions to increase their resiliency to the impacts of climate change. Foster has more than 14 years of experience working on climate adaptation, including 13 years at NOAA's Climate Science Program Office as a manager for climate research applications and services. He was the project manager for NOAA's Climate Resilient Communities project from 2005–2008 in collaboration with ICLEI-Local Governments for Sustainability. He holds a Master's degree in international relations and environmental management from Yale University, and a B.A. in international relations and environmental policy and a Minor in Latin American studies from the University of Massachusetts at Amherst.

**James Fox** James (Jim) Fox is the director of the National Environmental Modeling and Analysis Center at the University of North Carolina–Asheville. He serves as the team leader and principal investigator for several major collaborations that deal with utilizing large environmental databases, spatial visualizations and other high-end technologies to create products for decision making in complex situations. Fox holds undergraduate degrees in geology/geophysics and communications, and a Master's degree in information technology for informal education. His passion is utilizing community collaborations and computer technologies to aid in complex decision making. Over the years, he has designed and taught many workshops with a foundation in hands-on learning through the application of tools to real-life problems.

**Dee Freeman** Named secretary of the N.C. Department of Environment and Natural Resources in January 2009, Dee Freeman previously served 36 years as a city manager and regional council director. His experience spans a wide array of interests, including environmental stewardship, economic development and the professional administration of government services. A native of Lenoir, he managed four North Carolina cities during his career, including Brevard and Shelby. He retired from his position as the executive director of the Triangle J Council of Governments in RTP. Freeman has an MPA from Appalachian State University and a B.S. from NCSU, as well as a Municipal Administration Certificate from the UNC School of Government in Chapel Hill. He is a "Credentialed Manager" as designated by the International City & County Management Association.

## Speaker Bios

**William Friday** William Clyde "Bill" Friday was the head of the University of North Carolina system from 1956 to 1986. His entire professional life was spent in higher education. Friday was assistant dean of students at UNC–Chapel Hill from 1948 to 1951, assistant to President Gordon Gray from 1951 to 1955, then secretary of the university and acting president from 1955 to 1957, when he was chosen as the new president. In retirement, Friday remains one of the state's most influential voices and hosts a public television talk show, "North Carolina People," which he began while still president of the University system.

**Howard Frumkin** Howard Frumkin is special assistant to the director for Climate Change and Health at the U.S. Centers for Disease Control and Prevention. For the past five years, he has directed the National Center for Environmental Health and Agency for Toxic Substances and Disease Registry at the CDC. Previously, he was professor and chair of the Department of Environmental and Occupational Health at Emory University's Rollins School of Public Health and professor of medicine at Emory Medical School.

Dr. Frumkin received his A.B. from Brown University, M.D. from the University of Pennsylvania, MPH and Dr.PH from Harvard, internal medicine training at the Hospital of the University of Pennsylvania and Cambridge Hospital, and occupational medicine training at Harvard. He is board certified in internal medicine and occupational medicine, and is a Fellow of the American College of Physicians, the American College of Occupational and Environmental Medicine, Collegium Ramazzini and the Royal College of Physicians of Ireland.

**Wayne Goodwin** Wayne Goodwin was first elected to the statewide post of Insurance Commissioner in 2008. He focuses on consumer advocacy through fair rate making, injury prevention efforts, and close regulation of insurance company solvency and industry practices. Goodwin is the newest member to the Council of State, made up of the 10 statewide elected officials. He is also the State Fire Marshal.

Prior to being elected Insurance Commissioner, Goodwin served as the Assistant Insurance Commissioner for nearly four years. He also served in the N.C. House of Representatives, where he represented Richmond, Scotland, Montgomery and Stanly counties for four consecutive terms.

He earned a B.A. in political science with honors (Morehead Scholar) at the University of North Carolina at Chapel Hill. He went on to earn his J.D. from the UNC School of Law.

**Zoe Johnson** Zoe Johnson is the program manager for climate change policy with the Office for a Sustainable Future at the Maryland Department of Natural Resources. She has been actively involved in climate change planning and policy initiatives in Maryland since 1998. She is the author of various reports and publications on climate change and sea-level rise adaptation, and coordinated the efforts of Maryland's Commission on Climate Change, Adaptation and Response Working Group. In August 2008, the working group completed its Comprehensive Strategy for Reducing Maryland's Vulnerability to Climate Change — the third component of Maryland's Climate Change Action Plan. Johnson is currently overseeing the implementation of the action plan's elements related to natural resource protection and state-level adaptation planning.

## Speaker Bios

**Thomas Karl** Thomas Karl currently serves as director of NOAA's National Climatic Data Center in Asheville, and interim director for NOAA's Climate Service. Karl is a fellow of the American Meteorological Society and serves as its past president. He is also a fellow of the American Geophysical Union and has published more than 150 peer-reviewed articles and several books as editor and contributor. He has served as editor of the *Journal of Climate* (1997–2000) and has been the convening and lead author and review editor of all the major IPCC assessments since 1990, which were recently awarded the Nobel Peace Prize. Karl was co-chair of the U.S. National Assessment and the recent *Global Climate Change Impacts in the United States* state of knowledge report and a number of other assessments produced by the U.S. Climate Change Science Program.

**David McNelis** Dr. David McNelis is the director of the Center for Sustainable Energy, Environment and Economic Development in the University of North Carolina at Chapel Hill's Institute for the Environment. He is also president of Nuclear Fuel Cycle Technologies LLC and serves as an adjunct professor in the Department of Nuclear Engineering at North Carolina State University. He is a physicist with educational and research interests in sustainable energy and the environment, with current specialization in the management of spent nuclear fuel and high-level radioactive waste. Former positions include research vice president at the University of Nevada-Las Vegas and director of the EPA's divisions of Remote Sensing and Advanced Monitoring Systems. His undergraduate training was at Gannon University, his master's degree is from the University of Alabama and his doctorate is from UNC–Chapel Hill.

**Jeff Michael** As director of UNC–Charlotte's Urban Institute, Jeff Michael oversees the administration and strategic direction of the institute. A planner and attorney by training, Michael received a Bachelor's degree in business administration and master's of regional planning from UNC–Chapel Hill, as well as a J.D. from the UNC School of Law. Michael also serves as director of the RENCI@UNC Charlotte Engagement Center, which is part of a statewide network called the Renaissance Computing Institute (RENCI). RENCI brings together researchers from five academic institutions to apply university expertise and advanced technologies to solve complex problems that affect the quality of life in North Carolina. The RENCI@UNC Charlotte Engagement Center, which is a partnership between the university's Urban Institute, its Center for Applied GIS and its Charlotte Visualization Center, is focusing on the effects of urbanization on North Carolina's quality of life.

**Kevin Moody** Kevin Moody has spent the past five years at the Federal Highway Administration, focusing on the identification and deployment of tools for managing uncertainty and risk. Moody's prior work experience includes 10 years with the U.S. Bureau of Reclamation and the U.S. Fish and Wildlife Service, and five years consulting on wetlands and fisheries issues. His professional highlights include technical support for groundwater withdrawal regulations in the European Union, managing restoration of large rivers in the arid southwest, and supporting North Carolina's response and recovery from several hurricanes. He was educated at Clark University and the University of New Hampshire.

## Speaker Bios

**Sam Pearsall** Sam Pearsall is the Environmental Defense Fund's southeast regional manager for land, water and wildlife. He was previously director of science and Roanoke River Project director for The Nature Conservancy's North Carolina Chapter. His focus is getting from good science to good policy for the sustainable management of natural resources and the conservation of ecosystem resilience. He has also served as the executive director of the Coastal Resources Center in Maine, Natural Areas Program manager for Tennessee and in various assignments with the TNC and Natural Heritage programs in Tennessee, Hawaii and the South Pacific. He has degrees from the University of Tennessee, Cornell University and the University of Hawaii where he was an East-West Center Fellow.

**Linda B. Rimer** Linda Rimer currently serves as liaison to North and South Carolina from the Region 4 Office of the U.S. Environmental Protection Agency. She represents the agency on both traditional environmental issues and issues related to sustainability. Before initiating this new liaison role, Rimer worked in the EPA headquarters office in Washington, D.C. as the deputy associate administrator for intergovernmental relations and as advisor on urban sustainability to the deputy administrator. From 1993 to 1998, she served as the assistant secretary for environmental protection for North Carolina within the Department of Environment, Health and Natural Resources. Rimer holds a Bachelor's degree in nursing from the University of North Carolina at Greensboro, Masters of Science degree from Rush University and Ph.D. in environmental policy from the School of Public Health at the University of Illinois at Chicago.

**Gloria M. Shepherd** Gloria Shepherd is the associate administrator for planning, environment and realty at the Federal Highway Administration (FHWA). She previously served as FHWA's director of planning, staff director for the Transportation Solutions Group at the Maryland Department of Transportation, deputy director of the Office of Planning and Preliminary Engineering at the Maryland State Highway Administration, and chief of staff for the commissioner of the New York State Department of Transportation. She earned her Masters of Law degree from Georgetown University, Doctor of Jurisprudence degree from Albany Law School and Doctor of Arts from the University at Albany.

**Scott Shuford** Scott Shuford is the planning and development director for Onslow County. He is a plural graduate from the University of North Carolina–Chapel Hill with both Bachelor of Arts (1979) and Master of Regional Planning (1981) degrees. His 25+ years of local government planning experience in North Carolina and Florida attracted the attention of the University of North Carolina–Asheville and NOAA's National Climatic Data Center for whom he wrote a handbook on climate change for professional planners. Much of the handbook is incorporated in a 2010 report titled "Planning for a New Energy and Climate Future" published by the American Planning Association.

## Speaker Bios

### John F. Sullivan III

John Sullivan became division administrator for the Federal Highway Administration in Raleigh in May 2003. Sullivan joined FHWA in 1985 and has since served in a variety of positions at the division and headquarters levels. Prior to his current assignment, he was the assistant division administrator in South Carolina.

Before launching his career with FHWA, Sullivan worked with an engineering firm in Norfolk, Va. He graduated from the Virginia Military Institute, with distinction, in 1983 and received his BSCE. He is a registered Professional Engineer in North Carolina, Maryland and Virginia. Sullivan also serves as the co-chair of the N.C. Interagency Leadership Team.

### Nina Szlosberg-Landis

Nina Szlosberg-Landis is in her third term as an at-large member of the N.C. Board of Transportation representing environmental issues. She is chair of the board's Environment Planning and Policy Committee, which she helped establish; the Multi-Modal Committee and the Transit Subcommittee. She also serves on the Triangle Transit Board of Authority and the Transportation Advisory Committee of the Capital Area Metropolitan Planning Organization. In 2003, Szlosberg-Landis was selected as one of 10 Eisenhower Fellows in the United States. She studied transportation land-use policy in Europe, with an emphasis on environmental protection and sustainability.

Szlosberg-Landis is a communications professional with more than 25 years experience in broadcasting, media production, community relations and social advocacy. As a local and national television correspondent and later an independent producer, she has earned more than 100 awards for her work, including an Emmy for a television documentary produced about land-use planning and transportation.

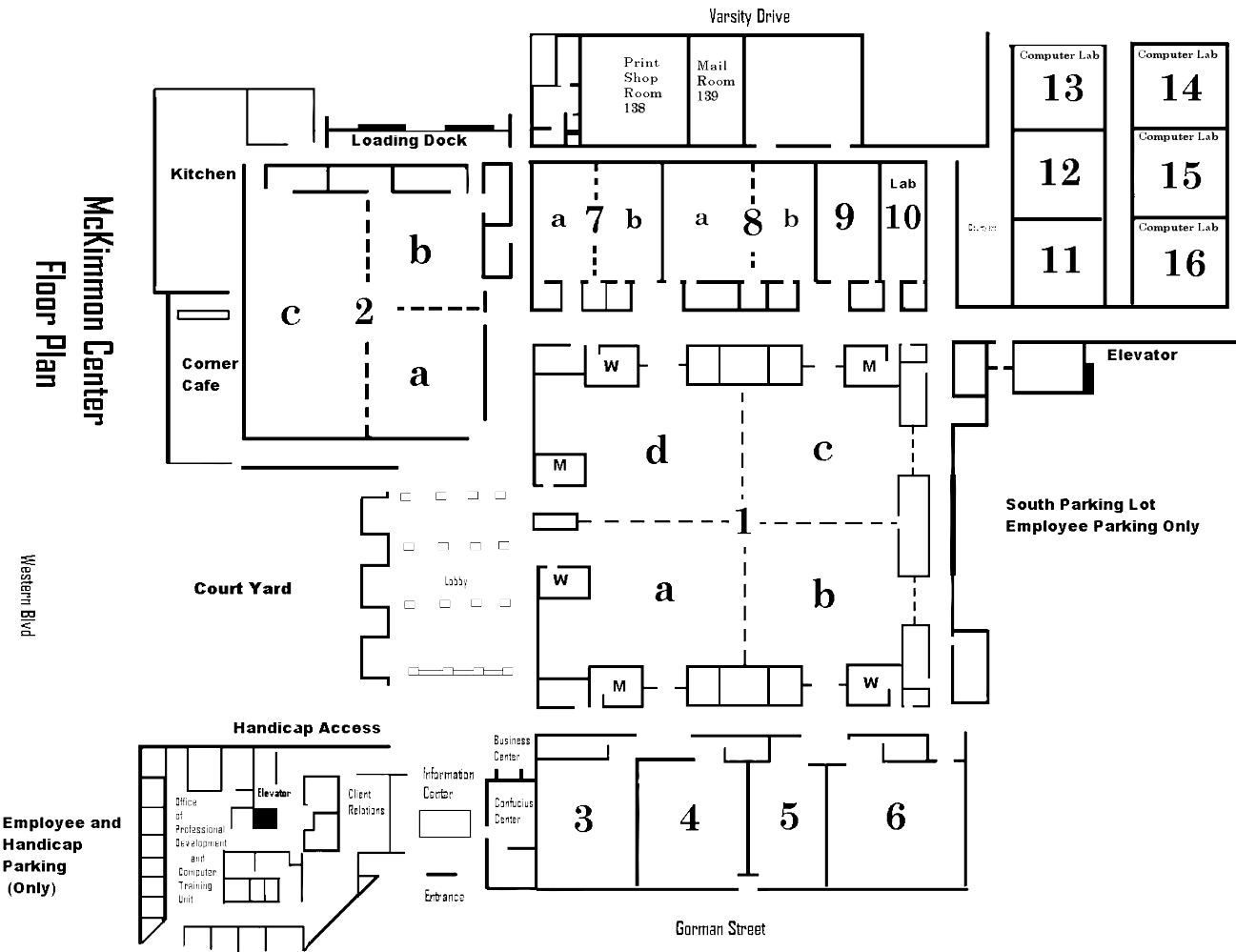
### Robert Verchick

Robert Verchick is deputy associate administrator of the Office of Policy at the U.S. Environmental Protection Agency. He is currently on leave from Loyola University–New Orleans, where he holds the Gauthier-St. Martin Chair in Environmental Law. He is a graduate of Stanford University and Harvard Law School. Verchick began his teaching career at the University of Missouri–Kansas City and has been a visiting professor at Peking University (China), Aarhus University (Denmark), Lewis & Clark College (Portland, OR), and Seattle University. Before entering academia, he practiced environmental law at Riddell Williams in Seattle. Verchick served for five years on the board of the Center for Progressive Reform. He is author or co-author of three books, including *Facing Catastrophe: Environmental Action for a Post-Katrina World*.

### Eric J. Walberg

Eric J. Walberg is the administrator of the Physical and Environmental Planning Department of the Hampton Roads Planning District Commission (HRPDC) in Chesapeake, Va. His responsibilities include oversight of several urban and environmental planning initiatives, and supervision of the department's planning and GIS staff. Prior to joining the HRPDC staff, he was employed by the Department of Community Development in Charlottesville, Va. where he was responsible for updating the Charlottesville Comprehensive Plan. Walberg holds a Master of Planning degree in urban and environmental planning from the University of Virginia, Bachelor of Science degree in computer science from Old Dominion University and Bachelor of Fine Arts degree from Virginia Commonwealth University.

## McKimmon Center Floor Plan





## North Carolina Interagency Leadership Team



<http://www.ncdot.gov/programs/environment/development/interagency/NCILT/>

### Interagency Leadership Team Members

N.C. Department of Agriculture & Consumer Services	David McLeod	Assistant Commissioner
N.C. Department of Commerce	Libby Smith	Policy Director
N.C. Department of Cultural Resources	Jeff Crow	Deputy Secretary, Archives and History
N.C. Department of Cultural Resources	Peter Sandbeck	Administrator, State Historic Preservation Office
N.C. Department of Environment & Natural Resources	Manly Wilder	Chief Deputy Secretary
N.C. Department of Transportation	Terry Gibson	State Highway Administrator
N.C. Department of Transportation	Debbie Barbour	Director of Preconstruction
N.C. Wildlife Resources Commission	Mallory Martin	Chief Deputy Director
U.S. Army Corps of Engineers	Ken Jolly	Chief, Regulatory Division
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